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RAW SEQUENCE LISTING   DATE: 12/26/2001
PATENT APPLICATION: US/09/880,573   TIME: 11:45:18

Input Set : N:\Crf3\RULE60\09880573.txt
Output Set: N:\CRF3\12262001\I880573.raw

SEQUENCE LISTING
3   (1) GENERAL INFORMATION:
5   (i) APPLICANT: Suzuki, Shintaro
7   (ii) TITLE OF INVENTION: Protocadherin Materials and Methods
9   (iii) NUMBER OF SEQUENCES: 115
11   (iv) CORRESPONDENCE ADDRESS:
12   (A) ADDRESSEE: Marshall, O'Toole, Gerstein, Murray, &
13   (B) STREET: 233 South Wacker, 6300 Sears Tower
14   (C) CITY: Chicago
15   (D) STATE: Illinois
16   (E) COUNTRY: USA
17   (F) ZIP: 60606
19   (v) COMPUTER READABLE FORM:
20   (A) MEDIUM TYPE: Floppy disk
21   (B) COMPUTER: IBM PC compatible
22   (C) OPERATING SYSTEM: PC-DOS/MS-DOS
23   (D) SOFTWARE: Patent In Release #1.0, Version #1.25
25   (vi) CURRENT APPLICATION DATA:
C--> 26   (A) APPLICATION NUMBER: US/09/880,573
C--> 27   (B) FILING DATE: 13-Jun-2001
28   (C) CLASSIFICATION:
30   (vii) PRIOR APPLICATION DATA:
31   (A) APPLICATION NUMBER: 09/099,639
32   (B) FILING DATE:
34   (viii) ATTORNEY/AGENT INFORMATION:
35   (A) NAME: Greta E. Noland
36   (B) REGISTRATION NUMBER: 35,302
37   (C) REFERENCE/DOCKET NUMBER: 27866/34703
39   (ix) TELECOMMUNICATION INFORMATION:
40   (A) TELEPHONE: 312/474-6300
41   (B) TELEFAX: 312/474-0448
42   (C) TELEX: 25-3856
45   (2) INFORMATION FOR SEQ ID NO: 1:
47   (i) SEQUENCE CHARACTERISTICS:
48   (A) LENGTH: 17 base pairs
49   (B) TYPE: nucleic acid
50   (C) STRANDEDNESS: single
51   (D) TOPOLOGY: linear
W--> 53   (ii) MOLECULE TYPE: DNA
65   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
67 AARSSNNTNG AYTRYGA   17
69   (2) INFORMATION FOR SEQ ID NO: 2:
71   (i) SEQUENCE CHARACTERISTICS:
72   (A) LENGTH: 17 base pairs
73   (B) TYPE: nucleic acid
74   (C) STRANDEDNESS: single
75   (D) TOPOLOGY: linear

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W--> 77      (ii) MOLECULE TYPE: DNA
     79      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
     81 TTRCTRTTRC GNGGNNN                                              17
     83 (2) INFORMATION FOR SEQ ID NO: 3:
     85      (i) SEQUENCE CHARACTERISTICS:
     86          (A) LENGTH: 131 base pairs
     87          (B) TYPE: nucleic acid
     88          (C) STRANDEDNESS: single
     89          (D) TOPOLOGY: linear
     91      (ii) MOLECULE TYPE: cDNA
     95      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
     97 AAGGGAGTGG ACTTTGAGGA GCAGCCTGAG CTTAGTCTCA TCCTCACGGC TTTGGATGGA     60
     99 GGGACTCCAT CCAGGTCTGG GACTGCATTG GTTCAAGTGG AAGTCATAGA TGCCAATGAC     120
    101 AACGCACCGT A                                                      131
    103 (2) INFORMATION FOR SEQ ID NO: 4:
    105      (i) SEQUENCE CHARACTERISTICS:
    106          (A) LENGTH: 43 amino acids
    107          (B) TYPE: amino acid
    108          (C) STRANDEDNESS: single
    109          (D) TOPOLOGY: linear
    111      (ii) MOLECULE TYPE: protein
    115      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
    117      Lys Gly Val Asp Phe Glu Glu Gln Pro Glu Leu Ser Leu Ile Leu Thr
    118      1               5                  10                  15
    120      Ala Leu Asp Gly Gly Thr Pro Ser Arg Ser Gly Thr Ala Leu Val Gln
    121              20                  25                  30
    123      Val Glu Val Ile Asp Ala Asn Asp Asn Ala Pro
    124          35                  40
    127 (2) INFORMATION FOR SEQ ID NO: 5:
    129      (i) SEQUENCE CHARACTERISTICS:
    130          (A) LENGTH: 131 base pairs
    131          (B) TYPE: nucleic acid
    132          (C) STRANDEDNESS: single
    133          (D) TOPOLOGY: linear
    135      (ii) MOLECULE TYPE: cDNA
    139      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
    141 AAACGCATGG ATTTCGAGGA GTCTTCCTCC TACCAGATCT ATGTGCAAGC TACTGACCGG     60
    143 GGACCAGTAC CCATGGCGGG TCATTGCAAG GTGTTGGTGG ACATTATAGA TGTGAACGAC     120
    145 AACGCACCTA A                                                      131
    147 (2) INFORMATION FOR SEQ ID NO: 6:
    149      (i) SEQUENCE CHARACTERISTICS:
    150          (A) LENGTH: 43 amino acids
    151          (B) TYPE: amino acid
    152          (C) STRANDEDNESS: single
    153          (D) TOPOLOGY: linear
    155      (ii) MOLECULE TYPE: protein
    159      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
    161      Lys Ala Met Asp Phe Glu Glu Ser Ser Ser Tyr Gln Ile Tyr Val Gln
    162      1               5                  10                  15
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              RAW SEQUENCE LISTING              DATE: 12/26/2001
              PATENT APPLICATION:  US/09/880,573     TIME: 11:45:18

              Input Set : N:\Crf3\RULE60\09880573.txt
              Output Set: N:\CRF3\12262001\I880573.raw
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164         Ala Thr Asp Arg Gly Pro Val Pro Met Ala Gly His Cys Lys Val Leu
165                     20                  25                  30
167         Val Asp Ile Ile Asp Val Asn Asp Asn Ala Pro
168                 35                  40
170 (2) INFORMATION FOR SEQ ID NO: 7:
172         (i) SEQUENCE CHARACTERISTICS:
173             (A) LENGTH: 131 base pairs
174             (B) TYPE: nucleic acid
175             (C) STRANDEDNESS: single
176             (D) TOPOLOGY: linear
178         (ii) MOLECULE TYPE: cDNA
182         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
184 AAGCGACTGG ACTTTGAGAC CCTGCAGACC TTCGAGTTCA GCGTGGGTGC CACAGACCAT       60
186 GGCTCCCCCT CGCTCCGCAG TCAGGCTCTG GTGCGCGTGG TGGTGCTGGA CCACAATGAC      120
188 AATGCCCCCA A                                                          131
190 (2) INFORMATION FOR SEQ ID NO: 8:
192         (i) SEQUENCE CHARACTERISTICS:
193             (A) LENGTH: 43 amino acids
194             (B) TYPE: amino acid
195             (C) STRANDEDNESS: single
196             (D) TOPOLOGY: linear
198         (ii) MOLECULE TYPE: protein
202         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
204         Lys Arg Leu Asp Phe Glu Thr Leu Gln Thr Phe Glu Phe Ser Val Gly
205         1                5                  10                  15
207         Ala Thr Asp His Gly Ser Pro Ser Leu Arg Ser Gln Ala Leu Val Arg
208                     20                  25                  30
210         Val Val Val Leu Asp His Asn Asp Asn Ala Pro
211                 35                  40
213 (2) INFORMATION FOR SEQ ID NO: 9:
215         (i) SEQUENCE CHARACTERISTICS:
216             (A) LENGTH: 131 base pairs
217             (B) TYPE: nucleic acid
218             (C) STRANDEDNESS: single
219             (D) TOPOLOGY: linear
221         (ii) MOLECULE TYPE: cDNA
225         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
227 AAGGGCCTGG ATTACGAGGC ACTGCAGTCC TTCGAGTTCT ACGTGGGCGC TACAGATGGA       60
229 GGCTCACCCG CGCTCAGCAG CCAGACTCTG GTGCGGATGG TGGTGCTGGA TGACAACGAC      120
231 AACGCCCCTA A                                                          131
233 (2) INFORMATION FOR SEQ ID NO: 10:
235         (i) SEQUENCE CHARACTERISTICS:
236             (A) LENGTH: 43 amino acids
237             (B) TYPE: amino acid
238             (C) STRANDEDNESS: single
239             (D) TOPOLOGY: linear
241         (ii) MOLECULE TYPE: protein
245         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
247         Lys Gly Leu Asp Tyr Glu Ala Leu Gln Ser Phe Glu Phe Tyr Val Gly
```

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248      1                 5                 10                15
252      Ala Thr Asp Gly Gly Ser Pro Ala Leu Ser Ser Gln Thr Leu Val Arg
253                      20                25              30
255      Met Val Val Leu Asp Asp Asn Asp Asn Ala Pro
256            35               40
258 (2) INFORMATION FOR SEQ ID NO: 11:
260      (i) SEQUENCE CHARACTERISTICS:
261            (A) LENGTH: 131 base pairs
262            (B) TYPE: nucleic acid
263            (C) STRANDEDNESS: single
264            (D) TOPOLOGY: linear
266      (ii) MOLECULE TYPE: cDNA
270      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
272 AAGGCGTTTG ATTTTGAGGA TCAGAGAGAG TTCCAGCTAA CCGCTCATAT AAACGACGGA       60
274 GGTACCCCGG TTTTGGCCAC CAACATCAGC GTGAACATAT TTGTTACTGA CCGCAATGAC      120
276 AACGCCCCGC A                                                           131
278 (2) INFORMATION FOR SEQ ID NO: 12:
280      (i) SEQUENCE CHARACTERISTICS:
281            (A) LENGTH: 43 amino acids
282            (B) TYPE: amino acid
283            (C) STRANDEDNESS: single
284            (D) TOPOLOGY: linear
286      (ii) MOLECULE TYPE: protein
290      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
292      Lys Ala Phe Asp Phe Glu Asp Gln Arg Glu Phe Gln Leu Thr Ala His
293      1                 5                 10                15
295      Ile Asn Asp Gly Gly Thr Pro Val Leu Ala Thr Asn Ile Ser Val Asn
296                      20                25              30
298      Ile Phe Val Thr Asp Arg Asn Asp Asn Ala Pro
299            35               40
301 (2) INFORMATION FOR SEQ ID NO: 13:
303      (i) SEQUENCE CHARACTERISTICS:
304            (A) LENGTH: 131 base pairs
305            (B) TYPE: nucleic acid
306            (C) STRANDEDNESS: single
307            (D) TOPOLOGY: linear
309      (ii) MOLECULE TYPE: cDNA
314      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
316 AAGGCGGTGG ATTACGAAAT CACCAAGTCC TATGAGATAG ATGTTCAAGC CCAAGATCTG       60
318 GGTCCCAATT CTATTCCTGC TCATTGCAAA ATTATAATTA AGGTCGTGGA TGTCAACGAC      120
320 AACGCTCCCA A                                                           131
322 (2) INFORMATION FOR SEQ ID NO: 14:
324      (i) SEQUENCE CHARACTERISTICS:
325            (A) LENGTH: 43 amino acids
326            (B) TYPE: amino acid
327            (C) STRANDEDNESS: single
328            (D) TOPOLOGY: linear
330      (ii) MOLECULE TYPE: protein
334      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
```

```
336     Lys Ala Val Asp Tyr Glu Ile Thr Lys Ser Tyr Glu Ile Asp Val Gln
337     1               5               10              15
339     Ala Gln Asp Leu Gly Pro Asn Ser Ile Pro Ala His Cys Lys Ile Ile
340                     20              25              30
342     Ile Lys Val Val Asp Val Asn Asp Asn Ala Pro
343             35              40
345 (2) INFORMATION FOR SEQ ID NO: 15:
347     (i) SEQUENCE CHARACTERISTICS:
348         (A) LENGTH: 135 base pairs
349         (B) TYPE: nucleic acid
350         (C) STRANDEDNESS: single
351         (D) TOPOLOGY: linear
353     (ii) MOLECULE TYPE: cDNA
357     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
359 TATGACCATG ATTACGAGAC AACCAAAGAA TATACACTGC GGATCCGGGC CCAGGATGGT      60
361 GGCCGGACTC CACTTTCCAA CGTCTCCGGT CTAGTAACCG TGCAGGTCCT AGACATCAAC     120
363 GACAATGCCC CCCCA                                                      135
365 (2) INFORMATION FOR SEQ ID NO: 16:
367     (i) SEQUENCE CHARACTERISTICS:
368         (A) LENGTH: 44 amino acids
369         (B) TYPE: amino acid
370         (C) STRANDEDNESS: single
371         (D) TOPOLOGY: linear
373     (ii) MOLECULE TYPE: protein
377     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
379     Tyr Asp His Asp Tyr Glu Thr Thr Lys Glu Tyr Thr Leu Arg Ile Arg
380     1               5               10              15
382     Ala Gln Asp Gly Gly Arg Thr Pro Leu Ser Asn Val Ser Gly Leu Val
383                     20              25              30
385     Thr Val Gln Val Leu Asp Ile Asn Asp Asn Ala Pro
386             35              40
388 (2) INFORMATION FOR SEQ ID NO: 17:
390     (i) SEQUENCE CHARACTERISTICS:
391         (A) LENGTH: 129 base pairs
392         (B) TYPE: nucleic acid
393         (C) STRANDEDNESS: single
394         (D) TOPOLOGY: linear
396     (ii) MOLECULE TYPE: cDNA
400     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
402 GGGGGGTCGA TTACGAGGAG AACGGCATGT TAGAGATCGA CGTGCAGGCC AGAGACCTAG      60
404 GACCTAACCC AATTCCAGCC CATTGCAAGG TCACAGTCAA GCTCATCGAC CGCAATGATA     120
406 ACGCCCCCA                                                            129
408 (2) INFORMATION FOR SEQ ID NO: 18:
410     (i) SEQUENCE CHARACTERISTICS:
411         (A) LENGTH: 43 amino acids
412         (B) TYPE: amino acid
413         (C) STRANDEDNESS: single
414         (D) TOPOLOGY: linear
416     (ii) MOLECULE TYPE: protein
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VERIFICATION SUMMARY   DATE: 12/26/2001
PATENT APPLICATION: US/09/880,573   TIME: 11:45:19

Input Set : N:\Crf3\RULE60\09880573.txt
Output Set: N:\CRF3\12262001\I880573.raw

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L:26 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:27 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:53 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:77 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2
L:1010 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=41
L:1016 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41
L:1027 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
L:1033 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1044 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=43
L:1050 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:3475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100
L:3491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101
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